ABSTRACT

Models in compositional state systems are reduced by defining a set of events of interest and defining a transitive effect machine for components in the model relative to the events of interest. A transitive effect machine for a given component is defined by determining the transitive effects of events in the given component on other components in the model. Transitive effect machines are defined relative to reduced versions of other components in the model. The transitive effect machines are defined by successive assumptions of the reduced versions of the other components in the model and successively defined approximations to the transitive effect machine.